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CLUB CALL:
W4DW

"RALEIGH AMATEUR RADIO SOCIETY NEWS"

APRIL 1980 ISSUE 122

# LEADING EDGE

SHERMAN STARNES, W4TZU

"Space Communications" was descriptive of the first effort by this writer but it was restrictive and the possibilities for a classy staff were limited. Nevertheless, a more all-encompassing title was not difficult to come by.

The term, "leading edge", has been adopted by technical journalists and ad men to describe a device or activity which is technologically in the forefront. Although this certainly describes amateur radio space communications, it applies to such things as narrow-band voice modulation, moonbounce and computer applications in amateur radio as well. Consequently, this column will comment on activities in areas other than space communications at times. If you or someone you know is involved in these or any other activities that could be described as "leading edge", pass the information along to this column. All of our club members derive a sense of pride in the accomplishments of any one of us so share your achievements with them through this column.

OSCAR 8 completed its second year in orbit the fifth of March. Stations submitting a teleme try report for 5-8 March to the ARRL were sent commorative second anniversary QSL cards. The spacecraft is in excellent condition and each week provides amateurs, world-wide, with 96 hours of access in each mode, A and J, as well as

24 hours for experimental activities and recharging batteries.

The venerable OSCAR 7, now aloft for more than five years, is showing some signs of wear. At least two cells in the battery have failed open, leaving the solar cell arrays for primary power. In order to extend the life of the transponder, the periods scheduled for mode B, (70 centimeter uplink, 2 meter downlink), have been changed to mode C, (low power). The mode A beacon at 29.502 mHz., never noted for a strong signal, still provides readable telemetry. Mode jumping continues as a consequence of the battery problem.

The phase 3-A spacecraft has survived a bout with customs officials in Germany and has completed flight certification tests in that country. In integration tests at Toulouse, France, one of the antennas had to be trimmed to fit the upper stage, requiring rematching. After the transponder was filled with a potting compound it changed in frequency slightly and was removed and returned to Germany for readjustment. The launch window for the Ariane rocket which will place the future OSCAR 9 in a transfer orbit has been established at 1500-1800 UTC each day from May 20 to May 28. The latest guesstimate is May 23.

The favorable comments on the column that I received at the last club meeting made a great evening all the more enjoyable. While I'm speaking in first person I want to thank my wife, Betty, who gives up some lunch hours and breaks to type the column.

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## CLUB NEEDS YOUR INPUT FOR HAMFEST '80 ISSUE OF RARS NEWS

The 1980 RARS Hamfest will be held Sunday, April 20 at Crabtree Mall in Raleigh.

RARS News distributed copies of its biggest and best issue at the 1979 Hamfest. Extra copies were printed and placed on the publications desk for free distribution. They went quickly.

We should make our May 1980 issue our Hamfest issue. The editor needs your help to make it bigger and better.

We need much copy.

Copy must be in hand by Saturday, April 12, as much as possible in finished form. That means three-inch columns, single-spaced. If you wish to write your own headline and byline, please do so. Look at other stories in this issue for style.

Visitors who took copies of RARS News at the 1979 Hamfest were impressed with what they saw and read.

Let's do it again.
A story with your byline is just what we need to make this Hamfest issue complete. Start writing.

## NCSU AMATEUR RADIO CLUB

## NEWS AND VIEWS

By

Charles Osborne, WD4MBK
Vice President, W4ATC

C.T. West has been prodding me for a little monthly news for some months now. Unfortunately, my professors prod more aggressively for stacks of reports and homework. It's spring break now, a time to catch up on sleep (I believe that's what it's called if I remember right) and term papers. Well, with eleven inches of snow on the ground, I think C.T. has finally got me trapped with nothing better to do.

To acquaint the newcomers in the area, the N.C. State University Amateur Radio Club is still another Raleigh Radio Club. Our membership is open to students and faculty of North Carolina State University.We are an old club, 50 years old this September, granted the call W4ATC in 1930. We like to call it: W4 America's Top College.

With about 35 members, interests vary over the range from 75 meters to 23 centimeters, CW, phone, computers and satellites. If we had the money, I'm sure the club's computer buffs would have us in there "pounding silicon" on 175 wpm CW with the best of them. Dues are steep for a college student: $15 per year or $7.50 Associate (unlicensed). But these days two pizzas will do similar damage to the wallet and it's certainly better than laying out 100 times that much for a station to call your own. (It also puts you in contact with a lot of upperclassmen, something that helps tremendously.) Equipment is Kenwood's R599D/T699D Twins and a battle worn SB-200. With 30 people working in shifts to wear them out, the Twins' track record of two 6146 finals and a volume control replaced in three years is amazing.

VHF/UHF is our current drive. I felt HF had given us all it could and VHF was an open door with infinite possibilities. It was, and is. So far, the VHF Project has brought in $1400 and a new lab specifically for VHF/UHF experimentation. That upgraded us from a Motorola Stripline with 04/64 crystals to SSB/CW capability on 2m, 6m, and 70cm in the last 3 years. The system still contains a

lot of borrowed parts, so donations of any type would be well received! (Call 737-3337, our club station, or write: NCSU Amateur Radio Club, Box 5275, NCSU, Raleigh, NC 27650.)

One project showing off our progressiveness is the East Coast 70 Cm Net. March 5 was the 25th calling of the net on 432.090 mHz Wednesday nights at 9:00 p.m. If you think we call a lonely net covering only the Raleigh-Durham area, you've been on '52 FM too long. Even with poor wintertime conditions, we have normal check-ins from Baltimore, Maryland to Augusta, Georgia. On a good night the two most distant chick-ins may be 800 miles apart. Not bad for 250 watts and an antenna array I can hold up with one hand.

If you think you're missing something now, wait until OSCAR 9 this summer with Hawaii-to-Europe QSOs and 12-hour instead of 20-minute access times.

One important note: some Raleigh hams have been heard just below 146.000 mHz on FM. It's just as easy to go down another 200 kHz for simplex privacy that won't be blanking out 15 percent of the OSCAR passband all over North America.

Other activities this spring will include a trip to the Benson FAA radar site and, hopefully, a trip to the WRAL transmitter site. Meeting dates for the remainder of the spring semester are April 9 and April 23, Wednesday nights at 7:00 p.m. in Daniels 228 on the NCSU campus. The weekend after exams comes our fourth annual after-exams campout on Whitetop Mountain in Virginia, May 9-11. It is a VHF paradise so high that weather has ranged from snow (we were snowed in on top of the mountain one year) to 80 degree sunburn weather the next year. We plan an assault June 14 and 15 on the VHF contest title from Whitetop and encourage interested RARS members to come and help us beat the Charlotte W4BFB monopoly.

Camper-operators and equipment for high power on 50 mHz and up are badly needed if we are to succeed. W4BFB has outclassed and outmanned us three to one, but we've come very close to beating them with only six people operating 18 out of 24 hours alloted the contests.

The campouts are fun for all and quite an experience if you've never "mountain-topped" before. Join in the fun.

See you on 70 cm or wherever W4ATC may be.

73.

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# THE RALEIGH AMATEUR RADIO SOCIETY'S

AN ARRL APPROVED

## 8TH ANNUAL

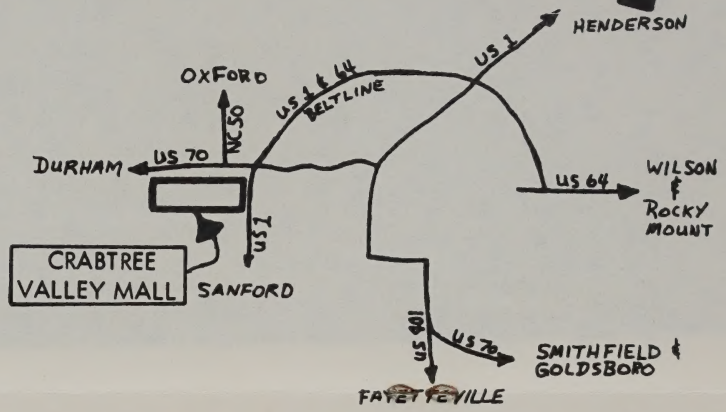
# HAMFEST

$3.00 GENERAL ADMISSION

**ACTIVITIES BEGIN AT 9:00 A.M.**

## APRIL 20 1980

**CRABTREE VALLEY MALL**
**US 70 WEST**
**RALEIGH, N.C.**




## ★ PRIZES!!! PRIZES!!! PRIZES!!!

1st Prize – Choice of Kenwood TS120S HF Transceiver and PS30, 12 volt power supply, or Kenwood TS700SP Multi-mode 2 meter Transceiver. Vickers Electronics of Durham aided RARS in the purchase of this prize.

2nd Prize – Kilowatt Three-element Tri-band beam. This prize presented by RARS.

3rd Prize – Heavy duty CDR Rotator presented with the assistance of CDE, Fuquay, North Carolina.

**MANY OTHER PRIZES WILL BE DRAWN ALL DAY SUNDAY!!!!**

## ★ E-X-P-A-N-D-E-D- FLEA MARKET (Covered)

## ★ WALK TO NEARBY MOTELS AND RESTAURANTS

| | |
|---|---|
| Howard Johnson–Crabtree Valley | 1-919-782-8718 |
| Sheraton Crabtree Motor Inn | 1-919-787-7111 |
| Ramada Inn–Crabtree | 1-919-782-7525 |

## ★ HOSPITALITY ROOM AT CRABTREE MALL

WEST COMMUNITY ROOM ON SATURDAY EVENING,
7 till 11 p.m. Social and Door Prizes!

## ★ TALK-IN SATURDAY AND SUNDAY

WR4ACF (146.04/146.64)
WR4AOE (146.28/146.88)

## ★ SPECIAL INTEREST MEETINGS: Q.W.C.A., M.A.R.S., & OTHERS.

FOR ADDITIONAL INFORMATION, DETAILS, OR RESERVATIONS WRITE:
RARS Hamfest, P. O. Box 17124, Raleigh, N. C. 27619

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## MEMBER CONTRIBUTIONS MAKE CLUB NEWSLETTER SUCCESS

Columns elsewhere in this issue of RARS News by Sherman Starnes and Charles Osborne are fine examples of material the editor seeks for member readership.

This issue contains Sherman's second column. He put much thought and work into it. The editor is most grateful to Sherman's wife Betty for typing his column so it was ready for paste-up.

Charles is still single, does not yet have a helpmate to assist him in such things as typing club columns, and types with one finger. He followed the editor's advice and sent his copy in longhand, very legible longhand. It was typed into three-inch columns by a typist.

Murray Hake's sharp eyes spotted some verses titled "Oops!" Murray said she "borrowed" them from the Santa Barbara, California Amateur Radio Club newsletter, Key Klix.

Ann Bradley produced a fine set of minutes of the club dinner meeting March 5. Recognition of club members for their achievements is preserved there for posterity. Congratulations to all.

A note for DX enthusiasts: Ron Oates took a leave of absence from his DX column to build a house. Having a demanding job is one thing. Overseeing the building of a house in addition to holding down a job adds a new dimension to frustration.

Ron said he hasn't been on the air much since he began building. He will resume his DX column after settling down from building and moving.

We look forward to his continued DX adventures.

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## OSBORNE TO PRESENT MOONBOUNCE PROGRAM AT APRIL MEETING

Charles Osborne, WD4MBK (as in Moon Bounce King) will describe some of his experiences bouncing radio signals off the moon at the monthly meeting of Raleigh Amateur Radio Society Wednesday, April 2.

The meeting will be held in West Community Room at Crabtree Mall beginning at 7:30 p.m.

His presentation will include audio tapes of moonbounce signals and slides of equipment used.

Charles, a regular at RARS meetings, is vice president of the campus amateur radio club at NCSU in Raleigh. The club radio call sign is W4ATC.

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MINUTES OF THE MEETING

March 5, 1980

The regular monthly meeting of the Raleigh Amateur Radio Society was held March 5, 1980 at N.C. State Faculty Club. The social hour began at 6:00 p.m. and a delicious buffet dinner was served at 7:00. The attendance list was signed by 86 members, guests and XYLs.

Following dinner, President Cobb, W4YZX, welcomed members and guests and introduced the officers and their spouses seated at the head table. He also expressed appreciation for the lovely flowers decorating the tables which were contributed by Joe Love, KB4RR. Doc hopes that a dinner meeting will become an annual event for RARS and be known as the annual awards and recognition dinner. Special recognition certificates were awarded to certain members for outstanding service to RARS.

Bert Bailey W4FMN
Traffic handling
Mike Bezera WD4TQD
Weather Net
Audry Browne WB4ZSM
Publicity & Public Relations
Jack Kenny WB4MCU
Hamfest & Repeater
Lynn Pendleton K4NYV
Station Trustee
Field Day
Ron Oats AA4VK
Program Chairman
Field Day
Paul Sims WB4YBF
10 Meter Net
Rollin Ransom N4AWR
Hamfest
George Richards WA4EKG
Repeater
Jim Peeler WA4YOM
Past Secretary

Bob Corns, K4MC, presented a handsome wood and brass plaque to past president, Chuck Littlewood, K4HF. Chuck has served as an officer of RARS for 4 years, 2 years as secretary and 2 years as President. His service and devotion to the club and the art are appreciated by all concerned.

Paul Sims, WB4YBF, introduced the Dixie District Champion Barbershop Quartet, "Mainstreet, USA," who provided the evenings entertainment. Their music was excellent and most thoroughly enjoyed by the group.

Three door prizes were drawn. Those who had paid 1980 dues by the end of February's meeting were eligible for a special

drawing. The lucky winner of the MC-50 Microphone was Sherman Starnes, W4TZU. The regular attendance prize was a dummy load won by Mike Bezers, WB4TQD. The ladies' prize, a cheese tray, was won by Shirley Peeler, XYL of Jim, WA4YOM. Shirly was ill and not able to be with us. Can't think of a more appropriate way to say, "We missed you, Shirley."

Our first annual dinner meeting was obviously a tremendous success. The response and participation by the membership was gratifying. Those of us who were privileged to share such an enjoyable evening wish to thank President Cobb for making it possible. We hope more such pleasant events will become permanent marks on the RARS calendar.

Ann Bradley, WA4APK
Secretary, RARS

---

OOPS!

Breathes there a ham with rig so dead,
Who never to himself has said
"Fear not! I know wherein my troubles lie.
"It's gotta be in my power supply!"

For soldering, and fearlessly, astride a stool,
He digs into the villain's innards
Forsaking breakfast, lunch and dinner.

No timid soul , our brave ingenious repair-or,
He soon has parts strewn from door to door:

Now, patiently replacing one by one,
Until at dawn the job is finally do done.
What's this??!! With switches thrown there comes,
No rectifier's glow?--No transformer's hum??!!

"A fie on thee!!" O curs'd contrivance of a human's toils!
In silent mockery all efforts despoils.
In dark despair our ham he up and says,
That's it! I'm through! No more! I quit!
"I've had enough! That's all I'm gonna do!!

"Who wants to buy a power supply! I'll sell it real cheap!
"I ought to throw the darn thing out so I can get some sleep!"

Now enters patient XYL with coffee pot a bubble,
Though mystified, in sympathy she listens to his trouble.

Says she, "About such things as this; I'm ignorant as sin,
"But don't you think it's really best to plug the darn thing in??

Bob Laxton, W7ALR
Squelch Tales

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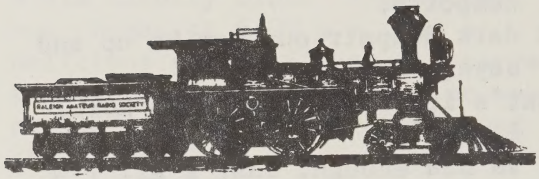

FOR SALE:

Kenwood two meter 7400A, synth., 30 watts, $275.

Vista 10 amp., 12 VDC power supply, $45.

Heath SB200 amplifier, 80-10 meters, $310.

Johnson Viking II with VFO, 200 watts, $50.

Johnson Viking Valiant, 160-10 meters, 275 watts, $75.

B&W low pass filter, $15.

GMT time mechanical digital clock, $5.

30K ohm/volt, 30 microamp. portable VOM, $15.

All gear with manuals. Good to excellent condition. Chuck Littlewood, 872-6555.

**RARS meets each first Wednesday at 7:30 p.m. in the West Community Room of Crabtree Valley Mall.**

**RARS TWO METER FM NET — Meets 8:00 p.m. every night**

**146.04/146.64 Repeater**

**RARS 10 METER SSB NET — Monday, Tuesday, Thursday, Friday Nights**

**7:00 p.m. — 28.540 MHz**